

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 26-28, 36-37, and 40-41 are currently being amended. No new matter has been added. Claims 21, 25-28, and 31-43 remain pending in this application.

Despite the finality of the present Office Action, Applicants respectfully request entry of the claim amendments. Claims 26-28, 36, and 41 have been amended only to correct minor typographical errors and to delete unnecessary words. Claims 37 and 40 have been amended to include elements similar to those previously presented in Claims 21, 36, and 43. Accordingly, Applicants respectfully submit that no new search is required.

I. Claim Rejections Under 35 U.S.C. § 103

On page 2 of the Office Action, Claims 21, 25-28, 31-40, and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,082,107 to Arvelo (hereinafter “Arvelo”), in view of U.S. Patent Application Publication No. 2006/0182030 to Harris et al. (hereinafter “Harris”) or U.S. Patent Application Publication No. 2004/0015765 to Cooper et al. (hereinafter “Cooper”). Applicants respectfully traverse the rejection.

Independent Claim 21 recites, in part, “responsive to the first error rate exceeding the threshold error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power” (emphasis added). Although different in scope, independent Claims 26, 36, 40, and 43 recite similar elements. Applicants respectfully submit that Arvelo, Harris, and Cooper, alone or in any proper combination, fail to disclose, teach, or suggest such elements.

On page 3 of the Office Action the Examiner states that Arvelo teaches:

responsive to the first error rate exceeding the threshold error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power

(abstract, figures 1 and 3, col. 3 lines 12-33, col. 3 line 40 – col. 4 line 65, col. 5 lines 21-61, col. 7 lines 4-11, col. 7 lines 30-52, col. 10 lines 37-46).

Applicants respectfully disagree. Column 3, line 63 to column 4, line 5 and column 4, lines 16-31 of Arvelo states (with emphasis added):

FIG. 1 demonstrates one embodiment of the present invention. In block 110, counters and registers are reset. In block 120, the process counts the number of packet errors in the short observation window and compares that number of packets to a first threshold. If the number of packet errors is greater than or equal to the first threshold, the packet error rate is higher than desired, indicating that the transmission power level is too low. In which case, the process proceeds to block 170 to increase the power. From block 170, the process returns to block 110 to reset and start over again.

...

Assuming the first threshold is not reached or exceeded in any contiguous set of packets in the short window, the process loops through blocks 120 and 130 until enough packets accumulate to fill the long observation window. Once the long observation window is filled in block 130, the number of packet errors accumulated during the long observation window is compared to a second threshold in block 140.

If the number of errors in the long window is too small, then the power level is higher than necessary. In other words, if the number of packet errors in the long observation window is less than or equal to the second threshold, the packet error rate has fallen below the desired rate and the signal quality is higher than desired. In which case, the process proceeds to decrease the power in block 160 and reset and restart the process in block 110.

Accordingly, Arvelo discloses that, in a first operation, a number of packet errors is compared to a first threshold, and, if the number of packet errors is greater than or equal to the first threshold, the transmission power is increased. Arvelo further discloses that if the first threshold is not exceeded, the number of packet errors is compared to a second threshold, and, if the number of packet error is less than or equal to the second threshold, the transmission power is decreased. In contrast, Claim 21 recites “responsive to the first error rate exceeding the threshold

error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power.” Arvelo thus discloses modifying the transmission power in the opposite manner of Claim 21. Namely, Arvelo discloses increasing the transmission power when a first threshold is met or exceeded and decreasing the transmission power when a second threshold is not met or exceeded.

The Examiner does not indicate that either Harris or Cooper disclose, teach, or suggest “responsive to the first error rate exceeding the threshold error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power,” and indeed they do not. Harris is directed to a “wireless communication system” in which “error targets used in transmission may be adjusted” (Abstract). However, similar to Arvelo, Harris teaches that in response to a relatively low packet error rate, the power level may be decreased, i.e., Harris discloses increasing the error rate by decreasing the power. For example, paragraph [0055] of Harris discloses that in response to a switch to a “higher frame error rate target” a lower transmit power level is used because greater error rates can then be tolerated.

Cooper is directed to an “adaptive and dynamic forward error correction scheme for a communication channel” (Abstract). Paragraph [0047] of Cooper states, in part, (with emphasis added):

After the bit error rate is calculated, processing moves to a decision step 207 where the calculated bit error rate is compared with the target bit error rate. If the calculated bit error rate is greater than the target bit error rate, then the forward error correcting power must be increased to reduce the calculated bit error rate. This process to reduce the bit error rate follows the affirmative path leading from the decision step 207. If the calculated bit error rate is less than the target bit error rate, meaning that fewer errors are occurring on the channel than the target number of errors, then the error correcting power can be decreased (following the negative path from the decision step 207) to allow the calculated bit error rate to increase.

As such, similar to Arvelo, Cooper teaches that power is increased in response to an error rate exceeding a target rate, and decreased in response to an error rate not exceeding the target rate. Cooper thus fails to disclose, teach, or suggest "responsive to the first error rate exceeding the threshold error rate, transmitting the plurality of packets at a second output power, wherein the second output power is less than the first output power," as recited in Claim 21 (and similar elements recited in Claims 26, 36, 40, and 43

For at least the reasons above, Applicants respectfully submit that Arvelo, Harris, and Cooper, alone or in combination, fail to disclose, teach, or suggest at least one element recited in each of independent Claims 21, 26, 36, 40, and 43 (and their associated dependent claims). Applicants therefore request reconsideration and withdrawal of the rejection of Claims 21, 25-28, 31-40, and 43 under 35 U.S.C. § 103(a).

II. Allowable Subject Matter

On page 22 of the Office Action, Claims 41 and 42 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicants thank the Examiner for indicating the allowable subject matter. However, as discussed above, Applicants respectfully submit that Claim 40 (from which Claims 41 and 42 ultimately depend) is in condition for allowance. As such, Applicants respectfully request allowance of Claims 41 and 42.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit

card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date July 6, 2010

FOLEY & LARDNER LLP
Customer Number: 23524
Telephone: (608) 258-4466
Facsimile: (608) 258-4258

By 

Nicholas M. Lagerwall
Attorney for Applicant
Registration No. 63,272